



THE IMPORTANCE OF IT TECHNOLOGIES IN INDIVIDUAL ORIENTED LEARNING

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Abstract: *The paper reveals the importance of the use of IT technology in individual oriented learning. Difference in interests and targets for the study of ESP are due to individual needs, diversity, gender, different life experience, ethnicity and even age. New IT Technologies used in education can be an answer to many of the problems of individual students for whom individual directed teaching strategies are needed. The experience of students from Bucharest Technical University of Civil Engineering is presented.*

Keywords: *e-learning, gender, diversity, life experience, psychological factor, individual learning.*

I. INTRODUCTION

The introduction of modern technologies, the use of computer-assisted learning, the facilities offered by the internet in education opened more flexible ways of communication and of easy access to limitless information and it changed the teaching process with giant like steps.

The education offer is different, the role of the teacher is changed from a Guru like into a mediator and a coordinator of the learning process. The students can have the possibility to modify very easily the conditions of learning, the location, the rhythm, and the time dedicated to study.

New opportunities of self-evaluation are offered allowing the possibility to self-appreciate ones own accuracy. The development of the capacities of communication and of networking is notable.

Nevertheless a sincere presentation of the benefits of IT assisted learning has equally to take into account the human factor, the characteristics of the individual actors that perform in the new educational process, that is meant to different needs and that is received with different range of acceptance due to life experience, diversity, gender, ethnicity, age and different capacity to adapt to new educational processes.

Computer assisted education has not the same result for a student who uses the computer only for 2 hours during the class, as it has for another more fortunate colleague who has a personal laptop with wireless internet that allows him connection freely, everywhere and every time. Psychological factors including motivation, attention sets and readiness to perception acquisition and storage of knowledge are equally important during the learning process.

In order to set even the balance between advantages and possible disadvantages, a proper analysis is proposed in order to look for solutions.

When discussing the problem of the importance of IT-technologies with a special interest to individual oriented learning, certain preliminary questions have to be answered:

What is individual learning?

Which are the advantages of IT technologies in the educational process meant for the special needs of individual learners?

How can we characterize the possible sources of stress and even frustration due to excessive use of IT technologies in learning?

Where shall we look for the best direction to take to satisfy individual needs?

II. WHAT IS INDIVIDUAL LEARNING?

In order to be able to give a proper answer to the question, we have to consider the classroom as a place of diversity where male/ female students, coming from town/country locations, belonging to majority/minority population groups and possessing a different story of education and personal life experience cohabitate.

That is why when looking for the best learning methods we have to be aware that "a one size cannot fit all approaches". According to figures nearly 38% of learners have additional learning needs.

Different profiles of students imply the use of methods necessary to those coming to the ESP seminar. Therefore, the individual learning is the ability of each and every student to get personal information, knowledge and skills, to be able to acquire data and to build a personal educational portfolio.

An important element in the process of individual learning consists in being aware of the psychological variable that may either facilitate or inhibit the effort of language learning.¹

In order to get good results in the educational process it is also important to develop students' awareness of their personal values as a dimension of diversity.

Maoli Ashamalla², in his book *Individual Diversity – The Relevance of Personal Values*, points out the importance of identifying and clarifying students own value within the educational process. "It is important to understand that no two people have 100% agreement on what they value." Therefore it is crucial to identify both one's own value and to appreciate other people's values in order to be able to deal effectively with individual values differences in work group and organization and respectively within the class.

It is also known that not all attempts to learn a foreign language succeed. Individual differences make themselves felt. ...Some people are doing very well like one Giuseppe Mezzafanti, the chief curator of the Vatican Library, who at the beginning of the 19th century spoke 60 languages and could translate more than 150 languages and dialects , while others like former British prime minister Edward Heath(in the 1970s) spoke only one foreign language, namely French with lamentable result.

There are people who put a lot of effort to foreign language learning but have no talent – aptitude to help them in any way.

Parental support, friends' good examples, a good motivation can facilitate an easy path to success in individual foreign language learning.

III. WHICH ARE THE ADVANTAGES OF IT TECHNOLOGIES IN THE EDUCATIONAL PROCESS MEANT FOR THE SPECIAL NEEDS OF INDIVIDUAL LEARNERS?

Possible conflicts can be avoided by seeing what values are common to the class and which are the individual differences due to the different needs of students studying ESP. A questionnaire was settled for a group of 30 students of ESP. They were second year students studying ESP at the Roads, Bridges and Highways Faculty of the Bucharest Civil Engineering University. The group

¹ P Skehan; -1989- *Individual Differences in Secondary Learning*: London, Edward Arnold

² Maoli H. Ashamalla;-2002- *Individual Diversity – The Relevance of Personal Values*, Indiana University of Pennsylvania

consisted of 24 boys and 6 girls out of which 4 had Hungarian as mother languages, 2 students were more than 30 years old.

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1. Do you consider the Study of ESP important for your future career?
 - a. Yes – 24 students
 - b. No – 6 students (3 Hungarian and 3 Romanian mother language)
2. Are you satisfied with your level of knowledge of ESP?
 - a. Yes – 17 students
 - b. No – 13 students (10 boys, 5 girls)
3. Do you use the computer in your study of the foreign language?
 - a. Yes – 30 students
 - b. No – 0 students
4. At what do you use the computer?
 - a. For learning and gathering information – 22 students
 - b. For entertainment, games – 8 students (2 girls, 6 boys)
5. Do you use online resources?
 - a. Yes – 28 students
 - b. No – 2 students
6. Do you use on ground resources – books, dictionaries?
 - a. Yes – 10 students (4 girls, 6 boys)
 - b. No – 20 students
7. How often do you use the computer?
 - a. Every day – 22 students
 - b. Every week – 8 students (coming from the province)
 - c. Occasionally – 2. students
8. Do you consider the computer important in your study or a waste of time?
 - a. Important – 25 students
 - b. Waste of time – 5 students (2 girls, 3 boys)
9. What do you use the computer for?
 - a. Mathematics, mechanics, technical topics -22 students (all students having Hungarian as mother tongue)
 - b. Language and communication – 25 students
 - c. Looking for a job – 15 students
 - d. Sports – 18 students (all boys)
 - e. Medical advice – 10 students (all girls)
 - f. Arts – 7 students

- g. Travels – 20 students
- h. Music – 20 students

The results of the questionnaire revealed that out of 30 students inquired, many considered:

- the study of foreign languages as being very important (24 students),
- the use of computer for learning. to be indispensable (all 30 students)
- the use of computer for gathering information (22 students)
- some used computers mainly for the entertainment (only 8 students)
- a large majority used computers to get on line resources (28 students)
- some used on ground resources too (books ,dictionaries) only (10 students)
- the majority used the computer everyday (22 students)
- students from the province used the computer only weekly (8 students)
- the majority appreciated the computer as being important in learning (25 students)
- only very few (5 students) considered computers a waste of time
- language and communication were ranked highest among the uses the students preferred to give to computer (25 students),while fewer used it to study art subjects (7 students),, or get medical advice (10 students) or look for a job(15 students)

The questionnaire also revealed the fact that there was a difference in interest for the use of computers due to gender and ethnicity or even between students from the province as compared to those living Bucharest.

IV. HOW CAN WE CHARACTERIZE THE POSSIBLE SOURCES OF STRESS AND EVEN FRUSTRATION DUE TO EXCESSIVE USE OF IT TECHNOLOGIES IN LEARNING?

The general trend to “on line everything”, education included, seems to be a preferred way of solving time consuming activities. No more time left to go to the University public Library together with colleagues to make a research by using the academic manuals, encyclopedias or other on ground resources for the answer to a problem in which one can be interested. It seems easier” to click the internet” and find out the solution that can be downloaded “already chewed by another person considered an authorized source. One may feel relieved of an accomplished task. It goes quickly, very quickly. Nevertheless it happens rather often to one to be obliged to go from a link to another and to grow nervous and frustrated when “the almighty net” does not understand what precisely one has wanted to find out. There were not few those who have predicted that on line learning will solve all problems and make happy most of the individual learners with all their particular needs and wants. The answers people got were nevertheless general ones, global ones that could not fit in every Cinderella’s sleeper as the Prince had hoped to happen.

In many cases young students remain stuck on the screen of the internet wishing to see more, to look for further answers, not minding to attend other social or educational requirements. They feel that the answer can be found only there and no longer in long and contradictory discussions with teachers, with friend and even with parents. Face to face communication with the others remain an old fashioned habit while a new kind of communication with several persons who ping-pong answers can offer an end to communication. That happens mostly in the run to start another one that will be cut short, equally soon.

The use of IT technologies extensively and uniquely can be an impediment in students developing their own perspective on the topic under study and can obstruct them from the possibility of creating a new view of the matter. Specialists have already reacted against the tendency to copy paste and the parrot like reproduction of knowledge as a source of learning.

Another question is whether the use of IT technologies in learning as well as the use of “ the on line resources are easier to get or they can be a Big Brother that gives one only what he wants and paralyzes ones curiosity within a limited framework”³

Thus, the human factor, especially the psychological factor has to be considered in the education process because it may be, (according to Papa, F; Perugini, M and allia 1998,) a variable that can affect performance due to inhibition.⁴

Despite worries, critics and uncertain future predictions, the use of IT technologies in learning and above all in individual learning continue to gain addicts. Who can think of learning foreign language, especially ESP and not use computer at hand

More and more material resources are spent to up date foreign language laboratories in schools and universities. Civil Engineering Technical University is no exception since it possesses several Laboratories equipped with the latest computers and using some of the most recent educational programs.

V. WHERE SHALL WE LOOK FOR THE BEST DIRECTION TO TAKE TO SATISFY INDIVIDUAL NEEDS ?

Considering the pro and against of the benefits of computer assisted learning, steps should be taken in finding the best directions to satisfy student individual needs.

Learning a foreign language on your own, without the fear of dealing with time pressure or having to keep up with a class where some could be far better than you while others seem far behind you, is an opportunity warmly received by all that prefer to learn assisted by a computer.

It gives you power and feeling of prestige since you can use a new and modern piece of equipment that can facilitate your efforts to acquire success.

Students' former class experiences when they had to continue to learn new materials before having the time and the choice to upgrade their basic knowledge can find an end.

At home or in the University Resource Room, one can learn by receiving education input, use resources, solve tests, or self evaluate, in order to see the degree of progress acquired.

The benefits of IT learning an individual student consist in the possibility of working independently and escaping the constraint of time and location. Students may become more motivated and interactive when they are ready to share knowledge, to demand advice, to deliver acquired knowledge and why not become a resource themselves.

The relations with the e-teacher are no longer those from a transmitter to a receiver but rather from an expert in content, and a facilitator of learning to a user that permanently updates self knowledge.

The experience with second year students from The Bucharest Technical University of Civil Engineering that got individual educational input after passing a test for establishing individual learning needs is still at its beginnings. It has already brought a fresh air of confidence in future success in ESP learning based on computer assisted techniques used for acquiring appropriate learning input, resources and possibilities of evaluation in order to pursue in the learning field.

³ Mihaela Ionescu -2008-The Use of On line Resources-in vol: *The 4th International Scientific Conference “e-Learning and Software for Education ,Bucharest University Publishing House, p342*

⁴ F. Papa M; S. Perugini; and S. Spedaletti-1998- “ Psychological factors in virtual classroom situations ; a pilot study ,a model of learning through technological devices” in: *Behavior and Information Technology*, vol. 17 no.4 , ed. Taylor and Francis LTD , p189

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